

Amendments to the Claims

Please amend Claims 3-8, 10-13, 15, 18-21, 23-26. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

What is claimed is:

1. (Original) A method of detecting the modification of a substrate, comprising the steps of:
 - a) exposing an unmodified substrate to a sample under conditions that will result in a modification of the substrate, the unmodified substrate including a peptide and a first colorimetric component, the first colorimetric component coupled to the peptide; and
 - b) detecting a modification of the substrate or an absence of the modification of the substrate, wherein the modification comprises cleaving the first colorimetric component from the substrate and results in a visible color change.
2. (Original) A method according to Claim 1, wherein the first colorimetric component is covalently bonded to the peptide.
3. (Currently Amended) A method according to ~~either~~ Claim 1 ~~or 2~~, wherein the modification includes hydrolysis of a peptide bond and results in a portion of the peptide detaching from the substrate.
4. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 1[[-3]], wherein the substrate includes at least one member of the group consisting of the peptide sequence LLGDFFRKSKEKIGKEFKRIVXRIKDFLRNLPRTES, the peptide sequence KAAHKSALKSAE, the peptide sequence KKASEAAHKSALKSAE, the peptide sequence CHHHASEAAHKSALKSAE, the peptide sequence KHLGGGALGGGAKE, the peptide sequence KHLGGGGGAKE, the peptide sequence ACCDEYLQTKE, the peptide sequence ADTVEPTGAKE, the peptide sequence KLPHKLSWSADNP, the peptide sequence PVPSTPPTPSPSTP, the peptide sequence NMLSEVERE, the peptide sequence KQNMLSEVERADTE, the peptide sequence NEAIQEDQVQYE, the peptide sequence ETKVEENEAIQK, the peptide sequence DSRPVRRRRRPRVSK, the peptide

sequence KVSRRRRRGGD, the peptide sequence KKASEVSRRRRRGGK, the peptide sequence CHHHASEVSRRRRRGGK, the peptide sequence KEKIGKEFKRIVQE, the peptide sequence KVQRIKDFLRNLVE, the peptide sequence EAAGAMFLEAIPK, the peptide sequence EGAMFLEAIPMSIPK, the peptide sequence CGAMFLEAIPMSIPAAAHHHHH, the peptide sequence KARRRRRRGGGAMFLEAIPMSIPCGC, the peptide sequence VSRRRRRRGGDGDGC, the peptide sequence GGDGDGC, the peptide sequence VSRRRRRRGGDGKGDAC, the peptide sequence NEAIQEDQVQARRAKARRAC, the peptide sequence QVQARRAKARRAC, the peptide sequence GGDGKGDAC, the peptide sequence QVQARRRAKARRAC, the peptide sequence VSRRRRRRGGKGC, the peptide sequence SVTRRRRRRGGRASGGC, the peptide sequence SEAIQEDQVQYCAAAHHHHH, the peptide sequence KARRRRRRGGDGDGCGC, the peptide sequence HHHHHSRRRRRRGGC, the peptide sequence HHHHHSVQRIKDFLRNLVCGC, the peptide sequence RRRRRSVQRIKDFLRNLVCGC, the peptide sequence HHHHHAHKSAKLSACGC, the peptide sequence RRRRRAHKSAKLSACGC, the peptide sequence PGTKLYTPW, an Alt derived peptide, a peptidoglycans, lipoteichoic acid, and a lipid vesicle.

5. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 1[[-4]], ~~wherein~~ wherein the first colorimetric component is one of the members of the group consisting of a dye; a reactive dye; a fiber reactive dye; a dye suitable for use in a contact lens; a dye suitable for use in a suture; a monohalogentriazine dye; a dihalogentriazine dye; a 2,4,5 trihalogenopyrimidine dye; a 2,3 dihaloquinoxaline dye; a N-hydroxysulfosuccinimidyl a (sulfo-NHS) ester functionalized dye; a N-hydroxysuccinimidyl (NHS) functionalized dye; a vinyl sulfone dye; a sulfonyl chloride dye; a tetrafluorophenyl ester functionalized dye; an isothiocyanate functionalized dye; and an iodoacetyl functionalized dyes.
6. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 1[[-5]], wherein the visible color change is a loss of color.

7. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 1[[-6]], wherein the unmodified substrate further includes a second colorimetric component that is dissimilar to the first colorimetric component.
8. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 1[[-7]], wherein the peptide is coupled to a solid support.
9. (Original) A method according to Claim 8, wherein the modification of the substrate results in a hue of the solid support becoming more visible.
10. (Currently Amended) A method according to ~~either~~ Claim 8 [[or 9]], wherein the peptide is covalently attached to the solid support.
11. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 8[[-10]], wherein the solid support is selected from the group consisting of a wound dressing, a sterilized material, an article that contains the sample, an article that collects the sample, a polymer, a membrane, a resin, glass, a sponge, a disk, a scope, a filter, a lens, a foam, a cloth, a paper, a suture, and a bag.
12. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 1[[-11]], wherein the sample is at least one of the group consisting of a wound surface on a subject, a body fluid, a piece of hair, a piece of nail, a piece of shell, a piece of scale, a piece of feather, a piece of tissue, an article implanted in the body of an animal, catheter, a urine collection bag, a blood collection bag, a plasma collection bag, a disk, a scope, a filter, a lens, foam, cloth, paper, a suture, a swab, a dipstick, a sponge, a polymeric article, an article made of a resin, a glass article, a test tube, a well of a microplate, a portion of contact lens solution, a sponge, a polymeric material, a membrane, an article made of resin, an article made of glass, and a swab.
13. (Currently Amended) A method according to ~~any of~~ Claim[[s]] 1[[-12]], wherein modification of the substrate includes cleaving a portion of the peptide to produce a cleaved portion, the cleaved portion including the first colorimetric component, the

modification resulting in the migration of the cleaved portion toward a collector, and the migration resulting in a visible color change.

14. (Original) A method according to Claim 13, wherein the collector includes at least one material selected from the group consisting of a membrane, a resin, a polymer, a film, glass, or a chelating material.
15. (Currently Amended) A method according to ~~any of Claim[[s]] 1[[-14]]~~, ~~wherein~~ wherein modification of the substrate is used to indicate the presence of a bacterial enzyme selected from the group consisting of a lysin, an autolysin, a lipase, an exotoxin, a cell wall enzyme, a matrix binding enzyme, a protease, a hydrolase, a virulence factor enzyme, and a metabolic enzyme.
16. (Original) A biosensor for detecting the presence or absence of a protein, the biosensor comprising a peptide that specifically reacts with a protein and a first colorimetric component coupled to the peptide.
17. (Original) A biosensor according to Claim 16, wherein the first colorimetric component is covalently bonded to the peptide.
18. (Currently Amended) A biosensor according to ~~either~~ Claim 16 ~~or~~ 17, wherein the substrate includes at least one member of the group consisting of the peptide sequence LLGDFFRKSKEKIGKEFKRIVXRIKDFLRNLVPRTES, the peptide sequence KAAHKSALKSAE, the peptide sequence KKASEAAHKSALKSAE, the peptide sequence CHHHASEAAHKSALKSAE, the peptide sequence KHLGGGALGGGAKE, the peptide sequence KHLGGGGGAKE, the peptide sequence ACCDEYLQTKE, the peptide sequence ADTVEPTGAKE, the peptide sequence KLPHKLSWSADNP, the peptide sequence PVPSTPPTPSPSTP, the peptide sequence NMLSEVERE, the peptide sequence KQNMLSEVERADTE, the peptide sequence NEAIQEDQVQYE, the peptide sequence ETKVEENEAIQK, the peptide sequence DSRPVRRRRRRPRVSK, the peptide sequence KVSRRRRRRGGD, the peptide sequence KKASEVSRRRRRRGGK, the peptide sequence CHHHASEVSRRRRRRGGK, the peptide sequence KEKIGKEFKRIVQE, the peptide sequence KVQRIKDFLRNLVE, the peptide sequence EAAGAMFLEAIPK, the

peptide sequence EGAMFLEAIPMSIPK, the peptide sequence CGAMFLEAIPMSIPAAHHHHH, the peptide sequence KARRRRRGGGAMFLEAIPMSIPCGC, the peptide sequence VSRRRRRGGDGDGC, the peptide sequence GGDGDGC, the peptide sequence VSRRRRRGGDGKGDAC, the peptide sequence NEAIQEDQVQARRAKARRAC, the peptide sequence QVQARRAKARRAC, the peptide sequence GGDGKGDAC, the peptide sequence QVQARRRAKARRAC, the peptide sequence VSRRRRRGGKGC, the peptide sequence SVTRRRRRGGRASGGC, the peptide sequence SEAIQEDQVQYCAAHHHHH, the peptide sequence KARRRRRGGDGDGCGC, the peptide sequence HHHHHSRRRRRGGCGC, the peptide sequence HHHHHSVQRIKDFLRNLVCGC, the peptide sequence RRRRRSVQRIKDFLRNLVCGC, the peptide sequence HHHHHAHKSAKLSACGC, the peptide sequence RRRRRAHKSAKLSACGC, the peptide sequence PGTKLYTPW, an Alt derived peptide, a peptidoglycans, lipoteichoic acid, and a lipid vesicle.

19. (Currently Amended) A biosensor according to ~~any of~~ Claim[[s]] 16[[-18]], wherein the first colorimetric component is one of the members of the group consisting of a dye; a reactive dye; a fiber reactive dye; a dye suitable for use in a contact lens; a dye suitable for use in a suture; a monohalogenotriazine dye; a dihalogenotriazine dye; a 2,4,5 trihalogenopyriminidine dye; a 2,3 dihaloquinoxaline dye; a N-hydroxysulfosuccinimidyl a (sulfo-NHS) ester functionalized dye; a N-hydroxysuccinimidyl (NHS) functionalized dye; a vinyl sulfone dye; a sulfonyl chloride dye; a tetrafluorophenyl ester functionalized dye; an isothiocyanate functionalized dye; and an iodoacetyl functionalized dyes.
20. (Currently Amended) A biosensor according to ~~any of~~ Claim[[s]] 16[[-19]], further including a second colorimetric component coupled to the peptide, the first colorimetric component being dissimilar to the first colorimetric component.
21. (Currently Amended) A biosensor according to ~~any of~~ Claim[[s]] 16[[-20]], further including a solid support, the peptide coupled to the solid support.

22. (Original) A biosensor according to Claim 21, wherein the peptide is covalently attached to the solid support.
23. (Currently Amended) A biosensor according to ~~either~~ Claim 21 ~~or~~ 22, wherein the solid support is selected from the group consisting of a wound dressing, a sterilized material, an article that contains a sample, an article that collects a sample, a polymer, a membrane, a resin, glass, a sponge, a disk, a scope, a filter, a lens, a foam, a cloth, a paper, a suture, and a bag.
24. (Currently Amended) A biosensor according to ~~any of~~ Claim[[s]] 16[[-23]], further including a collector that includes at least one material selected from the group consisting of a membrane, a resin, a polymer, a film, glass, or a chelating material.
25. (Currently Amended) A biosensor according to ~~any of~~ Claim[[s]] 16[[-24]], wherein the peptide includes a sequence that specifically reacts with an enzyme selected from the group consisting of a lysin, an autolysin, a lipase, an exotoxin, a cell wall enzyme, a matrix binding enzyme, a protease, a hydrolase, a virulence factor enzyme, and a metabolic enzyme.
26. (Currently Amended) A kit for detecting a protein, comprising a biosensor according to ~~any of~~ Claim[[s]] 16[[-25]] and at least one reagent.